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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/769,075

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Aaron L. Culbreth

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EXAMINER

POLLOCK, GREGORY A

ART UNIT

PAPER NUMBER

3693

MAIL DATE

DELIVERY MODE

10/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/769,075

Applicant(s)

CULBRETH ET AL.

Examiner

GREG POLLOCK

Art Unit

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-18 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-18 and 20-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to claims filed 08/05/2004 and Applicant's request for reconsideration of application 10/769075 filed 06/09/2008.

The amendment contains original claims 5-18, 21, 22, and 24.

The amendment contains amended claims 1, 3, 4, 16, 20, 23, and 25-27.

Claims 2 and 19 have been canceled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6-13, 15-18, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al. (U.S. Application No. 20010031066) in view of Fredlund et al. (U.S. Patent No. 6111950).

As per claim 1, Meyer et al. teaches in a computer system ([¶118, line 1]), a method of generating an application identifier for a software application (hashing [¶28, lines 18-20] and [¶48]), the method comprising: generating the application identifier for the software application based on the applying of the identifier generation algorithm (binary data [¶13, line 4] and hashed metadata [¶28, lines 9-20], where metadata can include distinct application binary data comprising the software application.), the application identifier operable to distinguish the software application from other software applications on the computer system ([¶13, lines 12-16], [¶32, lines 1-5], [¶36, lines 7-11], and [¶46, lines 6-11]); and utilizing the application identifier for the software application to display information about the software

application in a graphical user interface ([¶19, lines 11-14], [¶58, lines 14-19], [¶61], and [¶67, lines 11-12]); **wherein the identifier generation algorithm is a hashing algorithm** (hashing [¶28, lines 18-20] and [¶48]).

Meyer et al. does not teach **obtaining graphical icon data from the software application, applying an identifier generation algorithm to application data for the software application, where the application data for the software application comprising the obtained graphical icon data for the software application.**

Fredlund et al. teaches **obtaining graphical icon data from the software application** (application programs are associated with specific images [column 2, lines 38-45]), **applying an identifier generation algorithm to application data for the software application** ([column 2, lines 45-57]), **where the application data for the software application comprising the obtained graphical icon data for the software application** (hashing signature created from the image data or files [Abstract, [column 5, line 58 – column 6, line 25])). (Note that the term "icon" in the claim limits is non-functional descriptive language, and is therefore given no patentable weight. There is functionally no difference between graphical data as found in prior art and graphical icon data presently claimed by the applicant. Further, it is old and well known in the art that graphical icon data related as used for software applications are stored just as any other graphical data.)

It would have been obvious to one skilled in the art at the time of the invention to have combined the invention of Fredlund et al. with that of Meyer et al. to achieve the claimed invention. Fredlund et al. provides the association of image data with an application program. Use of this association within Meyer et al. enables metadata searches for application programs based on their associated image file signature. Both Meyer et al. [¶12, lines 1-8] and Fredlund et al. acknowledges that other uses for their invention would be apparent to one skilled in the art. One skilled in the art would be motivated to combine the inventions because Fredlund et al. provides media such that an application will only operate with the images associated with in, thereby providing the consumer with the application limited to the needs of the user and at low cost. Meyer et al. makes the invention of Fredlund et al. more user friendly by providing metadata to the user useful in supplying auxiliary data as desired.

As per claim 6, the rejection of claim 1 has been addressed. Fredlund et al. teaches a method where **the graphical icon data is obtained from an icon file** (hashing signature created from the image data or files [Abstract, [column 5, line 58 – column 6, line 25])).

(Note that the term "icon" in the claim limits is non-functional descriptive language, and is therefore given no patentable weight. There is functionally no difference between graphical data as found in prior art and graphical icon data as claimed. Further, it is old and well known in the art that graphical icon data related to software applications are stored just as any other graphical data.).

It would have been obvious to one skilled in the art at the time of the invention to have combined the invention of Fredlund et al. with that of Meyer et al. to achieve the claimed invention. Fredlund et al. provides the association of image data with an application program. Use of this association within Meyer et al. enables metadata searches for application programs based on their associated image file signature. Both Meyer et al. [¶12, lines 1-8] and Fredlund et al. acknowledges that other uses for their invention would be apparent to one skilled in the art. One skilled in the art would be motivated to combine the inventions because Fredlund et al. provides media such that an application will only operate with the images associated with in, thereby providing the consumer with the application limited to the needs of the user and at low cost. Meyer et al. makes the invention of Fredlund et al. more user friendly by providing metadata to the user useful in supplying auxiliary data as desired.

As per claim 7, the rejection of claim 1 has been addressed.

Meyer et al. teaches a method **further comprising comparing the application identifier with a list of application identifiers** (maps the identifier to actions [¶22, line 14-17], where the identifier can be generated using hashing [¶28, lines 18-20] and [¶48]) **to determine an attribute of the software application** ([¶22, lines 10 to ¶23 line 4], where the data which is returned is metadata (see Figure 1). Metadata, or auxiliary data, may provide information describing the attributes of the software application [¶4 lines 6-10]).

As per claim 8, the rejection of claim 7 has been addressed.

Meyer et al. teaches a method **wherein the attribute comprises a parental control rating for the software application** ("inappropriate content for children" [¶23, line 19-21] and metadata [¶22, line 10 - ¶23 line 4]).

As per claim 9, the rejection of claim 1 has been addressed.

Meyer et al. teaches a method **further comprising sending the application identifier in a database query** ([¶23, lines 12-14], [¶31, line 9], [¶51, lines 9-12]).

As per claim 10, the rejection of claim 9 has been addressed.

Meyer et al. teaches a method **wherein a database receives the database query** ([¶23, lines 12-14], [¶31, line 9], [¶51, lines 9-12]), and **wherein the database returns results indicating whether metadata relating to the software application can be obtained from a metadata service** (metadata is

returned [Abstract lines 6-9], [¶ 22 lines 10-14], [¶23 lines 1-2], [¶23 lines 17-19], [¶24 lines 2-3], [¶25 lines 11-14], [¶31 lines 1-12] and the server responds to user if no association is found [¶7 lines 13-19]).

As per claim 11, the rejection of claim 9 has been addressed. Meyer et al. teaches a method **wherein a database receives the database query, and wherein the database returns results indicating whether the software application is of a particular application type** ([¶22, lines 10 to ¶23 line 4] and [¶48]).

As per claim 12, the rejection of claim 1 has been addressed. Meyer et al. teaches a method **wherein the application data further comprises a name of the software application** (hashed metadata [¶28, lines 9-20]).

As per claim 13, the rejection of claim 12 has been addressed. Meyer et al. teaches a method **wherein the name is a name of an executable file** (hashed metadata [¶28, lines 9-20]).

As per claim 15, the rejection of claim 1 has been addressed. Meyer et al. teaches a method **further comprising storing the application identifier in a data file along with one or more other application identifiers for other software applications** ([¶18, line 6] and [¶28, line 19], where a database is the data file.).

As per claim 16, the rejection of claim 1 has been addressed. Meyer et al. teaches a method **wherein the applying of the identifier generation algorithm comprises using functions included in an application programming interface** ([¶19, lines 11-14], [¶58, lines 14-19], [¶61], and [¶67, lines 11-12]).

As per claim 17, the rejection of claim 1 has been addressed. Meyer et al. teaches a method **wherein the application data further comprises registry data** ([¶15, lines 1-6], [¶18 line 1 to ¶19, line 5]).

As per claim 18, the rejection of claim 1 has been addressed. Meyer et al. teaches a method **wherein the software application is a gaming-related software application** (hashing [¶28, lines 18-20] and [¶48], where "gaming-related software application" is non-functional descriptive matter and, as such, is given no patentable weight. Further, "gaming-related software application" is old and well known in the art, see Alcorn et al (U.S. Patent 7063615) as an example.).

As per claim 27, All of the limits of Claim 27 have been previously addressed in Claim 1, and is therefore rejected using the same prior art and rationale.

4. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al. (U.S. Application No. 20010031066) in view of Fredlund et al. (U.S. Patent No. 6111950) in further view of official notice.

As per claim 3, the rejection of claim 1 has been addressed. Meyer et al. and Fredlund et al. do not specifically teach that **the hashing algorithm is a one-way hashing algorithm**.

One-way hashing algorithms are old and well known in the art (see Naor et al. (Moni Naor and Moti Young, "Universal One-Way Hash Functions and their Cryptographic Applications", appearing in Proceedings of the Twenty First Annual ACM Symposium on Theory of Computing. (May 15--17 1989: Seattle, WA, USA) [¶1, lines 1] as an example). Note that the use of specific hashing algorithms is a design choice, and is given no patentable weight.

It would be obvious to one of ordinary skill in the art at the time of the invention to have used a one-way hashing algorithm within the inventions of Meyer et al. and Fredlund et al.. One would be motivated to use a one-way hashing algorithm within the inventions of Meyer et al. and Fredlund et al. because one-way hashing algorithms have the main property that for every given input, it is computationally hard to find a different domain element input which collides with that input. This feature would increase the reliability of the inventions of Meyer et al. and Fredlund et al. by ensuring that search algorithms find one and only one search object for every input request.

As per claim 4, the rejection of claim 1 has been addressed. Meyer et al. and Fredlund et al. do not specifically teach that **the application identifier is a 20-byte hash value**.

One-way hashing algorithms are old and well known in the art (see Naor et al. (Moni Naor and Moti Young, "Universal One-Way Hash Functions and their Cryptographic Applications", appearing in Proceedings of the Twenty First Annual ACM Symposium on Theory of Computing. (May 15--17 1989: Seattle, WA, USA) [paragraph 8, line 8-9] as an example). Note that the use of specific hashing algorithms is a design choice, and is given no patentable weight.

It would be obvious to one of ordinary skill in the art at the time of the invention to have generated a 20-byte hash value within the inventions of Meyer et al. and Fredlund et al.. One would be motivated to have generated a 20-byte hash value within the inventions of Meyer et al. and Fredlund et al. because the transformation of a string of text characters into a generally shorter, fixed-length hash value that represents the original string can be used to index and retrieve file objects in a database management system faster when finding file objects using the shorter hash value than to find it using the original string. It is noted again that the length of the hash value is a design choice and function can be of any length that is smaller than the object being searched to gain the benefits of hashing.

As per claim 5, the rejection of claim 1 has been addressed.
Meyer et al. and Fredlund et al. do not specifically teach that **graphical icon data is obtained from an application binary**.

Obtaining graphical data from an application binary is old and well known in the art (see Tynan et al. (PGPub No. 20020032489) [¶20 lines 2-4] as an example).

It would be obvious to one of ordinary skill in the art at the time of the invention that the graphical data within the inventions of Meyer et al. and Fredlund et al. would be stored and obtained in binary form. From Fredlund et al. [¶68], [¶78], [¶90], [¶125], [¶208] [¶423], [¶503-509], [¶599], [¶651-697] it is clear that the digital signals (or objects) are stored and processed in binary form. One would be motivated to obtain graphical data in binary form since this is the standard form for storage and processing of information in a computer system, making the inventions of Meyer et al. and Fredlund et al. compatible, and therefore, more marketable to users.

5. Claims 14 and 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al. (U.S. Application No. 20010031066) in view of Fredlund et al. (U.S. Patent No. 6111950) in further view of Both (U.S. Patent No. 7412449) in further view of official notice.

As per claim 14, the rejection of claim 1 has been addressed.
Meyer et al. and Fredlund et al. do not specifically teach that **the application identifier is a unique ([Abstract]) fixed-length string**

Both teaches a method **wherein the application identifier is a unique ([Abstract]) fixed-length string** ([column 2, lines 48-52]).

It would have been obvious to one skilled in the art at the time of the invention to have combined the invention of Both with that of Meyer et al. and Fredlund et al. to obtain the claimed invention. One would be motivated to combine the inventions because Both provides a self-contained, high-performance file system to store and retrieve a large volume of documents without a need for a database management system. Thus both the cost of storage and the amount of time required to find the file object are reduced due to the use of a shorter hash value than that of the original string.

As per claim 20

Both teaches a method of hashing **a name for an executable file for the software application** ([Abstract]), **wherein the graphical user interface-based gaming activity center displays at least one game that was introduced to the activity center through an automatic search and at least one game that was introduced to the activity center through a manual search** (a user or a program can initiate the file object retrieval [column 3, lines 50-59]).

It would have been obvious to one skilled in the art at the time of the invention to have combined the invention of Both with that of Meyer et al. and Fredlund et al. to obtain the claimed invention. One would be motivated to combine the inventions because Both provides a self-contained, high-performance file system to store and retrieve a large volume of documents / files without a need for a database management system. Thus both the cost of storage and the amount of time required to find the file object are reduced due to the use of a shorter hash value than that of the original string.

All of the limits of Claim 20 have been previously addressed in Claim 1, 5, 9, 10, 12, 14, and 18, and is therefore rejected using the same prior art and rationale.

As per claim 21, the rejection of claim 20 has been addressed.

All of the limits of Claim 21 have been previously addressed in Claim 10 and is therefore rejected using the same prior art and rationale.

As per claim 22, the rejection of claim 20 has been addressed.

Meyer et al. teaches **wherein the graphical user interface-based gaming activity center is a feature of an operating system** ([¶110, lines 1-2], where "gaming- related software application" is non-functional descriptive matter and, as such, is given no patentable weight. Further, "gaming- related software applications" are old and well known in the art, see Alcorn et al (U.S. Patent 7063615) as an example.)).

As per claim 23, All of the limits of Claim 23 have been previously addressed in Claims 1 and 20 and is therefore rejected using the same prior art and rationale.

As per claim 24, the rejection of claim 23 has been addressed.
All of the limits of Claim 25 have been previously addressed in Claim 20, and is therefore rejected using the same prior art and rationale.

As per claim 25, the rejection of claim 23 has been addressed.
Meyer et al. **further teaches a method wherein the query to the application database comprises a request for metadata relating to the software application, and wherein the response to the query comprises metadata relating to the software application** [¶22, lines 10 to ¶23 line 4]).

As per claim 26, the rejection of claim 23 has been addressed.
All of the limits of Claim 26 have been previously addressed in Claim 8, and is therefore rejected using the same prior art and rationale..

Response to Arguments

6. Applicant's arguments, with regards to claims 1, 3-18 and 20-27, filed 06/09/2008 are moot based on new ground(s) of rejection. The prior art rejections above serve as the examiner's response to the applicant's arguments.
7. The new grounds of reject for claim 23 were not necessitated by the applicant's amendment. Therefore, this response is made non-final.

Conclusion

8. Applicant's amendment did not necessitate all new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE NON-FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- Alcorn et al. (US Patent: 7063615) – teaches that when a gaming software release is ready for shipment, a HASH function designed for cryptographic use generates a unique fixed-length string of 128 bits for the loadable code image and is used for authentication. The authentication process is not limited to just software images. Graphics files or any binary data set can be authenticated. Because the graphics images are so large, they are not verified every time a game is loaded. If needed, critical graphic images such as the faces of cards can be verified before initial use in a game.
 - Alcorn et al. (US Patent: 5643086) – teaches an electronic casino gaming system which includes an unalterable ROM for storing a casino game authentication program, including a message digest algorithm program, a decryption program and a decryption key. A casino game data set containing casino game rules and image data is stored in a mass storage device, such as a local disk memory or a remote network file server, along with the signature of the casino game data set. The signature is an encrypted version of the message digest of the casino game data set, prepared using a hash function.
 - Drews (US Patent: 6463535) – teaches creation of a application software manifest using hashing.

- Knowlton (US Patent: 6181838) – teaches a visual link mechanism residing in a local system for identifying addresses of locations in the plurality of remote systems wherein the local system is connected through a network to the plurality of remote systems. The network access mechanism includes a layout table for storing a plurality of plans for arranging and displaying a plurality of visual link graphic icons in a display, a visual links organizer, a visual link screen saver, and a hash protection mechanism for detecting the unauthorized construction or modification of visual links or other forms of files. Also described is a visual link capture engine for extracting graphics information from a data file and generating a corresponding graphic icon and a display layout generator for generating display layouts of sets of predetermined numbers of displayable visual objects.
- Michaelis et al. (PGPub No. 20050005098) – teaches techniques for associating software with hardware using cryptography are described. The software is identified by a software identifier (ID), and the hardware is identified by a hardware ID. The software is hashed to obtain a code digest. A code generator entity processes (e.g., hashes) the software code to obtain a code digest, which is a message digest resulting from the hashing. The hashing maps a potentially large and variable-sized file for the software code to a short fixed-size digest that can be more conveniently transferred and operated upon.

- Olcott (US Patent: 7046848) – teaches a deterministic finite automaton uses binary search (and optionally hashing) method(s) of sparse matrix representation to recognize the graphical representations of characters or icons from a bitmap representation of the computer screen.
- Rhoads (U.S. Application No. 20040022444) teaches A method and apparatus for identifying an object include encoding physical attributes of an object where the encoded information is utilized as at least one element for composing a digital watermark for the object. In another embodiment the physical attributes of the object are utilized as a key for accessing information included in a digital watermark for the object.
- Taylor et al. (PGPub No. 20020085001) – teaches an image processing apparatus to a plurality of separate input images are processed. For each input image to be processed, a version of the image with fewer pixels is generated and displayed to the user of the apparatus. An image data segmenter considers each input image in turn and uses a hash table to segment the data in the input image relating to a photographic mat and background from the data in the input image relating to the object. While the segmentation processing is being performed for an input image, the corresponding icon is displayed on display device is changed so that the user can monitor the progress of the processing for each individual input image (by looking at the corresponding icon) and the processing progress overall (by

looking at the number of images for which segmentation has been performed and the number for which segmentation remains to be performed).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Pollock whose telephone number is 571 270-1465. The examiner can normally be reached on 7:30 AM - 4 PM, Mon-Fri Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Kramer can be reached on 571 272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GAP

9/24/2008

/Gregory Pollock/

Examiner, Art Unit 3693

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193